

Serial No.: 09/458,875
Inventor: David J. Keller

In the Claims

Please cancel claims 20 and 24 and amend the following claims to the form indicated below.

1. (amended) A method used during the formation of a semiconductor device comprising the following steps:

forming a polysilicon layer;

12 etching said polysilicon layer with an etch in an environment comprising a pressure of from about 42 mTorr to about 78 mTorr, an upper power of from about 245 watts to about 455 watts, a lower power of from about 49 watts to about 91 watts, a halogen-containing gas flow rate of from about 35 sccm to about 65 sccm, and an oxygen-containing gas having an oxygen flow rate of from about 1.9 sccm to about 4.68 sccm.

19. (amended) A method used during the formation of a semiconductor device comprising the following steps:

providing a semiconductor substrate assembly having at least first and second features therein in spaced relation to each other, wherein said first and second features define an opening therebetween;

13 providing a blanket polysilicon layer over said semiconductor substrate assembly and within said opening;

forming a patterned photoresist layer over said blanket polysilicon layer;

etching a portion of said blanket polysilicon layer within said opening with a first etch comprising a halogen-containing gas flow rate of from about 35 sccm to about 65 sccm, and an oxygen-containing gas having an oxygen flow rate of from about 1.9 sccm to about 2.7 sccm;

subsequent to said first etch, etching said portion of said polysilicon layer within said opening with a second etch comprising a halogen-containing gas flow rate of from about 35 sccm to about 65 sccm and an oxygen-containing gas having an oxygen flow rate of from about 3.6 sccm to about 4.7 sccm.

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23. (amended) A method used during the formation of a semiconductor device comprising the following steps:

forming a polysilicon layer;

etching said polysilicon layer, wherein said etch of said polysilicon results in the formation of polysilicon stringers;

etching said polysilicon stringers with an etch comprising a halogen-containing gas having an oxygen flow rate of between about 35 sccm to about 65 sccm and an oxygen-containing gas at a flow rate of from about 1.9 sccm to about 4.7 sccm, an upper power of from about 315 watts to about 388 watts, and a lower power of from about 63 watts to about 77 watts.

25. (amended) The method of claim 23 wherein said step of etching said polysilicon stringers further comprises a pressure of from about 54 mTorr to about 66 mTorr, a halogen-containing gas flow rate of from about 45 sccm to about 55 sccm, and an oxygen-containing gas having an oxygen flow rate of from about 2.4 sccm to about 4.0 sccm.

26. (amended) The method of claim 23 wherein said etch of said stringers comprises etching said stringers with an etch consisting essentially of a halogen-containing gas and an oxygen-containing gas.